

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,014 DTD _____

CHANGE NO: 25

MODEL 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Lavatory Coat Hook)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES

M.L.
Ready 7/24/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____ AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____ EFFECT ON PRICE PER AIRPLANE:
RECURRING: _____
NON-RECURRING: _____
TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Revision to Lavatory Coat Hook)

Origin: Convair initiated

Reason for Change: To clarify the intent of the specification.

Description of Change:

Page 87, Paragraph 3.19.2.2.3 MISCELLANEOUS LAVATORY EQUIPMENT:

Revise below item as follows:

From: "One coat hook (folding-type on lavatory door)"

To: "One coat hook"

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: ALASKA AIRLINES INC.

MCL 13,013 DTD _____

CHANGE NO: 24

MODEL: 22-21 (#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.2.2.1)

ORIGIN: Convair initiated

REASON FOR CHANGE: Specification clarification.

EFFECT ON WEIGHT *

GUAR. WT. EMPTY

0

OPER. WT. EMPTY

0

EFFECT ON BALANCE *

0

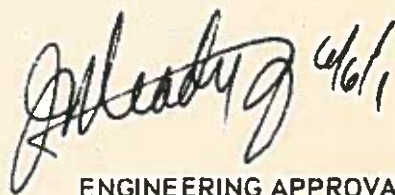
INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:


ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 24

Title: Specification Administrative Change (Revision to Paragraph 3.2.2.1)

Origin: Convair initiated

Reason for Change: Specification clarification.

Description of Change:

Page 9, Paragraph 3.2.2.1 COLOR CODING:

Revise the paragraph as follows:

From: "COLOR CODING: All sections of plumbing shall be color coded and banded in accordance with Military Standards and, in addition, marking shall indicate the direction of flow and the purpose of the line. The part number of each tubing assembly shall be identified. Color bands and part number identifications shall be plastic tape in accordance with Standard AND 10375."

To: "COLOR CODING: All sections of plumbing, except engine and within fuel tanks, shall be color coded and banded. All plumbing shall indicate the direction of flow and the purpose of the line. The part number of each tubing assembly shall be identified. Color bands shall be plastic tape in accordance with Standard AND 10375."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 27-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,075 DTD _____

CHANGE NO. 23

MODEL: 22-21 (#2) (Convair "880")


TITLE: Installation of Inflatable Escape Chutes in lieu of Non-Inflatable Escape Chutes

ORIGIN: Customer request

REASON FOR CHANGE: As above

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+60.0 lb	+103.0 lb	+80,958 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL	 ENGINEERING APPROVAL
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:	

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 23

Title: Installation of Inflatable Escape Chutes in lieu of Non-Inflatable Escape Chutes

Origin: Customer requested

Reason for Change: As above

Description of Change:

Page 95, Paragraph 3.19.6.2 EVACUATION PROVISIONS:

Change the first sentence to read as follows:

"Suitable means shall be provided for assisting rapid evacuation from emergency exits including escape ropes at exits over the wing and in the pilot compartment, and inflatable escape chutes at other emergency exits."

Page A-15, APPENDIX I-C - FURNISHINGS:

Change the fifth item in the equipment list as follows:

<u>From:</u>	"4* Escape Chute (Noninflatable)	65.0"
<u>To:</u>	"4* Escape Chute (Inflatable)	108.0"

Effect on Weight Empty:	+60.0 pounds
Effect on Operating Weight Empty:	+103.0 pounds
Effect on Operating Weight Empty Balance:	+80,958 inch-pounds
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,012 DTD _____

CHANGE NO: 22

MODEL: 22-21 (#2) (Convair "880")

TITLE: Specification Administrative Change (Landing Gear Pin Indicator Lights)

ORIGIN: Convair initiated

REASON FOR CHANGE: To specify that subject indicator lights are installed.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

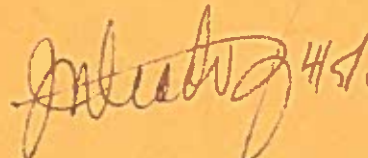
INCH LB.

EFFECT ON GUARANTEED PERFORMANCE *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

m DC

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 22

Title: Specification Administrative Change (Landing Gear Pin Indicator Lights)

Origin: Convair initiated

Reason for Change: To specify that subject indicator lights are installed.

Description of Change:

Page 21, Paragraph 3.8.1.5 LANDING GEAR SAFETY LOCK PINS:

Add the following to the end of the paragraph:

"Indicator warning lights shall be provided in the flight engineer's panel and shall be illuminated when the "safety lock" pins are inserted in the gear."

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-323 DATE _____

CUSTOMER Alaska Airlines Inc. MCL 13,073 DTD 1 March 1961

CHANGE NO. 21 MODEL 22-21 (#2) (Convair "880")

TITLE Main Tires, Fabric Reinforced, Installation of

ORIGIN: Convair initiated

REASON FOR CHANGE Product improvement

EFFECT ON WEIGHT *

GUAR. WT. EMPTY	OPER. WT. EMPTY
+23.0 lb	+23.0 lb

EFFECT ON BALANCE *

+20,194 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

M. E. Clayton
3/30/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 21

Title: Main Tires, Fabric Reinforced, Installation

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page A-14, APPENDIX I-C, LANDING GEAR EQUIPMENT:

Revise the below item under "Description" as follows:

From: "8 Tire, Main Wheel (39 x 13)
Type VII 22 Ply Rating,
Skid Depth .25-inches) U.S. Rubber"

To: "8 Tire, Main Wheel (39 x 13)
(Type VII, 22-Ply Rating,
Fabric-Reinforced Tread,
Skid Depth .35-inch) U.S. Rubber"

Effect on Weight Empty: +23.0 pounds
Effect on Balance: +20,194 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN FRANCISCO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-323

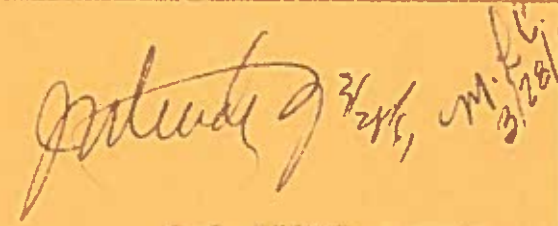
DATE _____

CUSTOMER Alaska Airlines Inc.

MCE 13,074 DTD 3 March 1961

CHANGE NO. 20

MODEL 22-21(#2) (Convair "880")

TITLE <u>Tape Reproducer, Installation of</u>			
ORIGIN <u>Verbal request, Sindt to Carothers, 2 March 1961</u>			
REASON FOR CHANGE <u>Customer request</u>			
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
<u>+23.0 lb</u>	<u>+23.0 lb</u>	<u>+6,049</u>	<u>INCH LB.</u>
EFFECT ON GUARANTEED PERFORMANCE *			
<u>None</u>			
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL.		 ENGINEERING APPROVAL	
ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:			
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED	
SPECIAL PROVISIONS		EFFECT ON PRICE PER AIRPLANE	
		RECURRING: _____	
		NON-RECURRING: _____	
		TOTAL: _____	

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 20

Title: Tape Reproducer, Installation of

Origin: Verbal request, Sindt to Carothers, 2 March 1961.

Reason for Change: Customer request.

Description of Change:

Page 71, Paragraph 3.17.1 EQUIPMENT:

Add the following item under "Description":

"Airborne Tape Reproducer"

Delete the below item under "Provisions for the following systems shall be made":

"Airborne Tape Reproducer"

Page 79, Paragraph 3.17.2.3.6 PUBLIC ADDRESS SYSTEM:

Revise the third sentence as follows:

From: "The system shall include provisions for an airborne tape reproducer located in the radio rack."

To: "The system shall include the installation of an airborne tape reproducer in the radio rack."

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Add the following item under "P.A. SYSTEM":

"1 Airborne Tape Reproducer Gables G-825"

Effect on Weight Empty: +23.0 pounds
Effect on Balance: +6,049 inch-pounds
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: 2D-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,071 DTD 10 February 1961

CHANGE NO: 18A

MODEL 22-21(#2) (Convair "880")

TITLE: Passenger Seating Configuration, Change to

ORIGIN: Verbal request, George Sindt to D. H. Digges on 9 February 1961; and Alaska TWX, George Sindt to R. B. Carothers, dated 10 February 1961 (WUA069)

REASON FOR CHANGE: Customer request, and revision to CCP No. 18.

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+744.0 lb

+785.0 lb

+691,518

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

ENGINEERING APPROVAL *WAC*

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING _____

NON-RECURRING: _____

TOTAL _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, INC. 61217A

CONVAIR: SD

Alaska Airlines Inc.
Change No. 18A

Page 1 of 5

Title: Passenger Seating Configuration, Change to

Origin: Verbal request, George Sindt to D. H. Digges on 9 February 1961; and Alaska TWX, George Sindt to R. B. Carothers, dated 10 February 1961 (WUA069)

Reason for Change: Customer request, and revision to CCP No. 18.

Description of Change:

Page 1, Paragraph 1.1 BASIC TYPE:

Revise the second and third sentences to read as follows:

"This specification describes an interior and seating arrangement for the accommodation of 107 passengers; consisting of 95 coach passengers and 12 lounge area passengers. Provisions also are incorporated in this airplane to permit conversion to various mixed seating arrangements and to a full first class seating arrangement."

Page 3b, INTERIOR ARRANGEMENT:

Replace the above illustration with Enclosure (A) which shows an all coach seating arrangement in lieu of first class seating; with the lounge area remaining unchanged.

Page 6, Paragraph 3.1.2.2 TYPICAL LOADING SUMMARY:

Under "Manufacturer's Weight Empty (dry)", change "(Standard Configuration)" to "(Coach Configuration, with 12-Place Lounge)".

In "Fixed Useful Load", change "Life Vests (91)" to "Life Vests (114)".

In "Payload (space limit)*", delete the asterisk and change "(Standard Configuration)" to "(Coach Configuration, with 12-Place Lounge)".

Revise "Space Limit Payloads:" as follows:

<u>From:</u>	<u>Standard</u>	<u>Coach Configuration</u>
"Space Limit Payloads:		
Passengers @ 165 lb		
(84 standard)(105 alternate coach)*	13,860	17,325 lb
Baggage @ 40 lb/passenger	3,360	4,200 lb
Cargo	5,270	4,430 lb
	<u>22,490</u>	<u>25,955 lb</u>

CONVAIR: SD

Alaska Airlines Inc.
Change No. 18A

Page 2 of 5

To: "Space Limit Payloads:

Coach Configuration
with 12-Place Lounge

Passengers @ 165 lb
(95 coach and 12-lounge)
Baggage @ 40 lb/passenger
Cargo

17,655 lb
4,280 lb
4,350 lb
26,285 lb

Delete the asterisk note on the bottom of Page 6 "(*NOTE: Space limit coach arrangement of)"

Page 9, Paragraph 3.2.1 GENERAL INTERIOR ARRANGEMENTS:

Revise the first sentence as follows:

From: "The standard interior arrangement of this airplane shall be as shown on the inboard plan and profile drawing."

To: "The interior arrangement of this airplane shall be as shown on Page 3b - INTERIOR ARRANGEMENT."

Page 16, Paragraph 3.7.1.3 CREW AND PERSONNEL STATIONS:

Revise the sentence as follows:

From: "The interior arrangement for the standard configuration shall be essentially as shown on the Inboard Profile Drawing herein."

To: "The interior arrangement shall be essentially as shown on Page 3b - INTERIOR ARRANGEMENT."

Page 63, Paragraph 3.16.8.3.4 READING LIGHTS:

Delete the second and third sentences which read as follows:

"Of the five lights provided at each passenger seat row, four shall be installed in optimum direction for the four-abreast standard seating arrangement. The fifth shall be directed toward the center coach seat location."

Delete the last seven words in the fourth sentence "(and placard to clearly indicate its function)"

Page 79, Paragraph 3.17.2.3.7 SPEAKERS:

In the second line, delete the word "standard".

Page 82, Paragraph 3.19.1 GENERAL:

Revise the paragraph to read as follows:

"The interior shall include furnishings and equipment for 107 passengers (including 12 lounge area passengers) and crew accommodations as shown on illustration herein. In addition, the interior shall be designed to permit conversion to various mixed seating arrangements and to a full first class seating arrangement."

Page 84, Paragraph 3.19.1.1.6 PASSENGER SEATS:

Revise the paragraph to read as follows:

"The passenger seating arrangement shall be as shown on Page 3b - INTERIOR ARRANGEMENT: consisting of 19 double coach seats, 19 triple coach seats and a 12-place lounge area. All passenger seats, except lounge seats, shall have reclinable backs and shall be equipped with plug-in center arm rests in the double seats, and with plug-in arm rests in the triple seat assembly except for the inboard and outboard arm rests which shall be fixed. Stowage provisions for life vests shall be made on the underside of the passenger seats. Integral folding food trays shall be installed in the passenger seat backs excluding last row of seats and the seats immediately forward of the movable coat dividers which shall have provisions only. Plug-in food trays shall be provided for the five front row seats, the five seat places just aft of the movable coat dividers and the 12-place lounge seats. Stowage for plug-in trays shall be provided. Literature pockets shall be installed on the main cabin forward partitions, the aft side of the movable coat dividers and directly below the food trays in the passenger seat backs."

Page 84, Paragraph 3.19.1.1.6.1 SEAT BACK MOVEMENT:

Revise the paragraph to read as follows:

"Each reclining seat shall be designed so that pressure applied on the aft side of the seat back will override the recline control lock without additional manual operation, and fold the seat back forward to its normal upright position. This pressure on the seat back shall not exceed 25 pounds. The seat back shall

fold to approximately 30 degrees forward of the vertical position by applying a load of not less than 30 pounds, or more than 35 pounds, at the top of aft side of the seat back without removing the center arm rest. The seat back may be further folded to approximately a horizontal position by removing the center arm rest. Seat back positions shall be as follows:

Normal Upright: 15 degrees aft of vertical

Maximum Recline: 38 degrees aft of vertical"

Delete the note on the bottom of Page 84 which reads:

"*45 degrees seat recline restricts use of integral folding food trays."

Page 89, Paragraph 3.19.3.1 GENERAL ARRANGEMENT:

In the first line, delete the word "standard".

Page 89, Paragraph 3.19.3.1.1 PASSENGER COMPARTMENT:

Revise the first sentence as follows:

From: "The main passenger compartment aisle shall be a minimum of 24 inches wide between arm rests in the standard configuration."

To: "The main passenger compartment aisle width shall be approximately 19 inches between arm rests in the coach configuration."

Page 91, Paragraph 3.19.3.6 HAT RACKS:

In the last line, change "Standard" to "Coach".

Page 94a, GASEOUS OXYGEN SYSTEM:

Above illustration will be revised to show 23 seat rows in lieu of 22."

Page A-2, APPENDIX I-B, CUSTOMER FURNISHED - CUSTOMER INSTALLED:

Revise the below item under "Description" as follows:

CONVAIR: SD

Alaska Airlines Inc.
Change No. 18A

Page 5 of 5

From: "91 Life Vest 159.0"
To: "114 Life Vest 200.0"

Page A-15, APPENDIX I-C, FURNISHINGS:

Revise the below items under "Description" as follows:

From: "36 Seats, Double (First Class)
68 Tray, Integral Folding Food
20 Tray, Plug-in Type
84 Belt, Passenger Safety"

To: "16 Double Seat Assemblies, R.H. Teco Inc. TE-801-T-2-44
16 Triple Seat Assemblies, L.H. Teco Inc. TE-801-T-3-64
2 Triple Seat Assemblies, L.H. Teco Inc. TE-801-T-3-64B
Special
2 Double Seat Assemblies, R.H. Teco Inc. TE-801-T-2-44B
Special
1 Triple Seat Assembly, L.H. Teco Inc. TE-801-TC-3-64
Special
1 Double Seat Assembly, R.H. Teco Inc. TE-801-TC-2-44
Special
85 Trays, Integral Folding Food
22 Trays, Plug-in Type
107 Belts, Passenger Safety"

Add the following item to the "Description List":

"19 Removable Plug-in Tables Teco Inc. 6574"

Enclosure: (A) One copy Page 3b - INTERIOR ARRANGEMENT (Revised)

Effect on Weight Empty: +744.0 pounds
Effect on Weight Empty Balance: +655,602 inch-pounds
Effect on Operating Weight Empty: +785.0 pounds
Effect on Operating Weight Empty Balance: +691,518 inch-pounds
Effect on Performance: None

The following shall not appear in the specification language:

The installation of the coach seats as covered by this proposal will be at 36-inch spacing, except that the five seat rows immediately aft of movable coat dividers will be at 35-inch spacing.

A "Babe in Arms" placard will be installed on the forward left hand partition.

Total weight of complete seats (including seat belts), 19 triple coach seats and 19 double coach seats, must not exceed 3,002 pounds. If actual weight exceeds this weight, the difference shall be Customer responsibility.

CONVAIR: SD

Page 3b
Report No. ZD-22-323
Model 22M



INTERIOR ARRANGEMENT
95 COACH PASSENGERS
17 PLACE LOUNGE AREA
ALASKA

NOVA 3-27-61

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,011 DTD _____

CHANGE NO: 17

MODEL: 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Miscellaneous Design Improvement Changes)

ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *

GUAR. WT. EMPTY

0

OPER. WT. EMPTY

0

EFFECT ON BALANCE *

0


INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Miscellaneous Design Improvement Changes)

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page 3a, GENERAL ARRANGEMENT:

Replace above illustration in the specification with Enclosure (A) which shows Krueger Flap installation between inboard pylon and fuselage, and trailing edge inboard flap extension.

Page 25, Paragraph 3.10.1.3 RUDDER SYSTEM

Insert the following sentence after the third sentence:

"In addition a hydraulically-operated servo unit powered from one hydraulic system shall be installed in the pedal linkage, in the nose wheel well, to reduce rudder pedal forces."

Page 26, Paragraph 3.10.2.1 LIFT AND DRAG INCREASING DEVICE SYSTEMS:

Delete the paragraph and substitute the following:

"LIFT AND DRAG INCREASING DEVICE SYSTEMS: The trailing edge flaps and leading edge slats and flaps shall be operated by hydraulic power controlled by a single lever on the pilot's pedestal. The leading edge slats and flaps shall be operated through torque tubes from a gear box which is powered by two hydraulic motors, one motor connected to each hydraulic system. The trailing edge flaps shall be operated through torque tubes from a gear box which is powered by either of two motors, one motor connected to each hydraulic system. By means of "no-back" type devices incorporated in the screw jacks, each control system shall be irreversible to prevent flap motion from airload. Full trailing edge flap deflection and leading edge slat and flap extension shall be obtainable from either hydraulic system. A monitoring system shall be provided to preclude asymmetrical positioning of the trailing edge flap in the event of mechanical failure. A pair of lights, one amber and one green, shall be installed on the center instrument panel for each right and left hand set of leading edge devices (slats and flaps). Lights shall illuminate "green" when the devices have fully extended and shall illuminate "amber" while the devices are in transit."

CONVAIR: SD

Alaska Airlines, Inc.
Change No. 17

Page 2 of 2

Page 50a, HYDRAULIC SYSTEM:

Replace the above illustration in the specification with Enclosure (B) which shows 100 percent flap power available from either No. 1 or No. 2 Systems, rudder pedal boost and deletes "TEMP. CONTROL" callout.

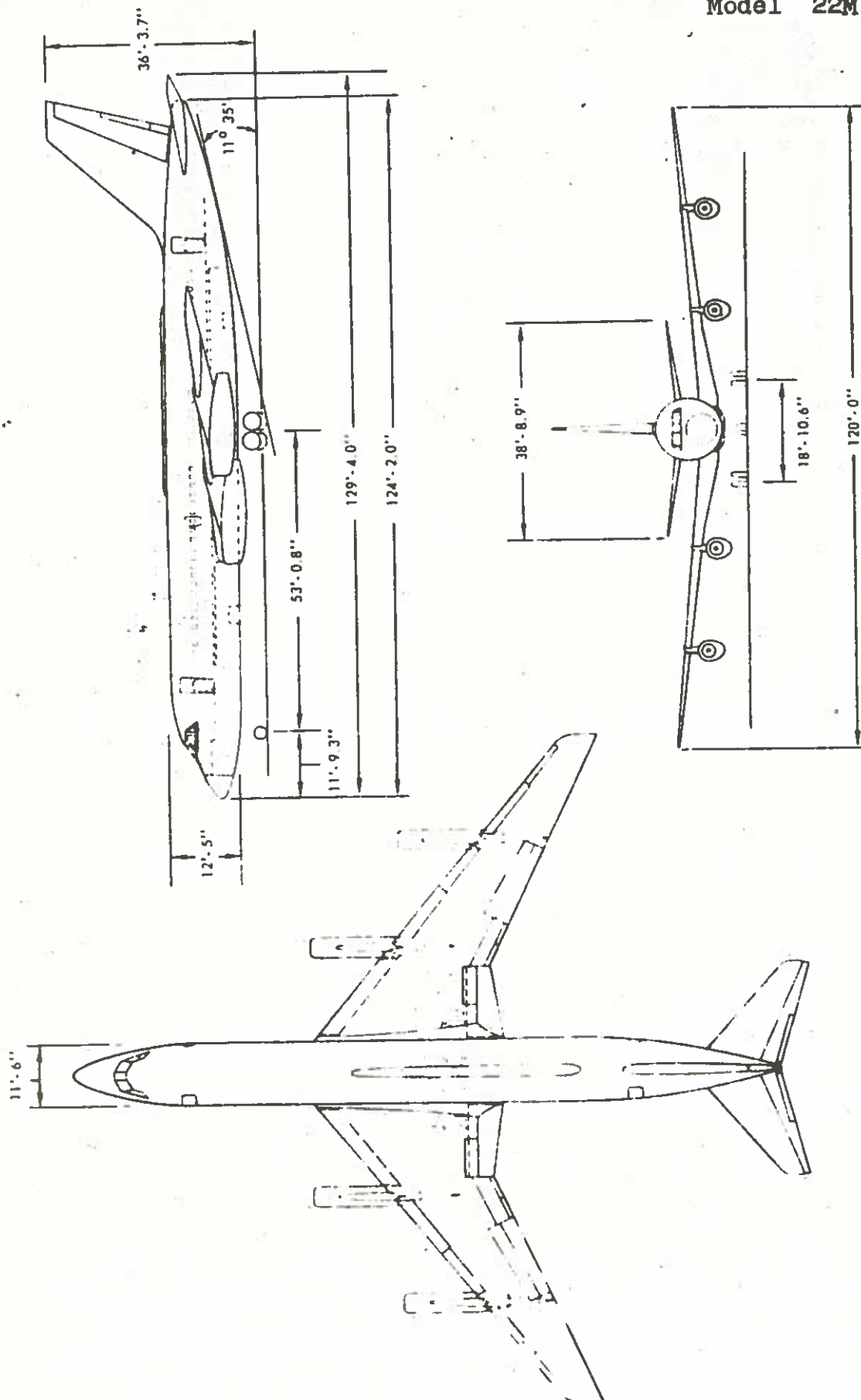
Enclosure: (A) One copy Page 3a - GENERAL ARRANGEMENT (Revised)

Enclosure: (B) One copy Page 50a - HYDRAULIC SYSTEM (Revised)

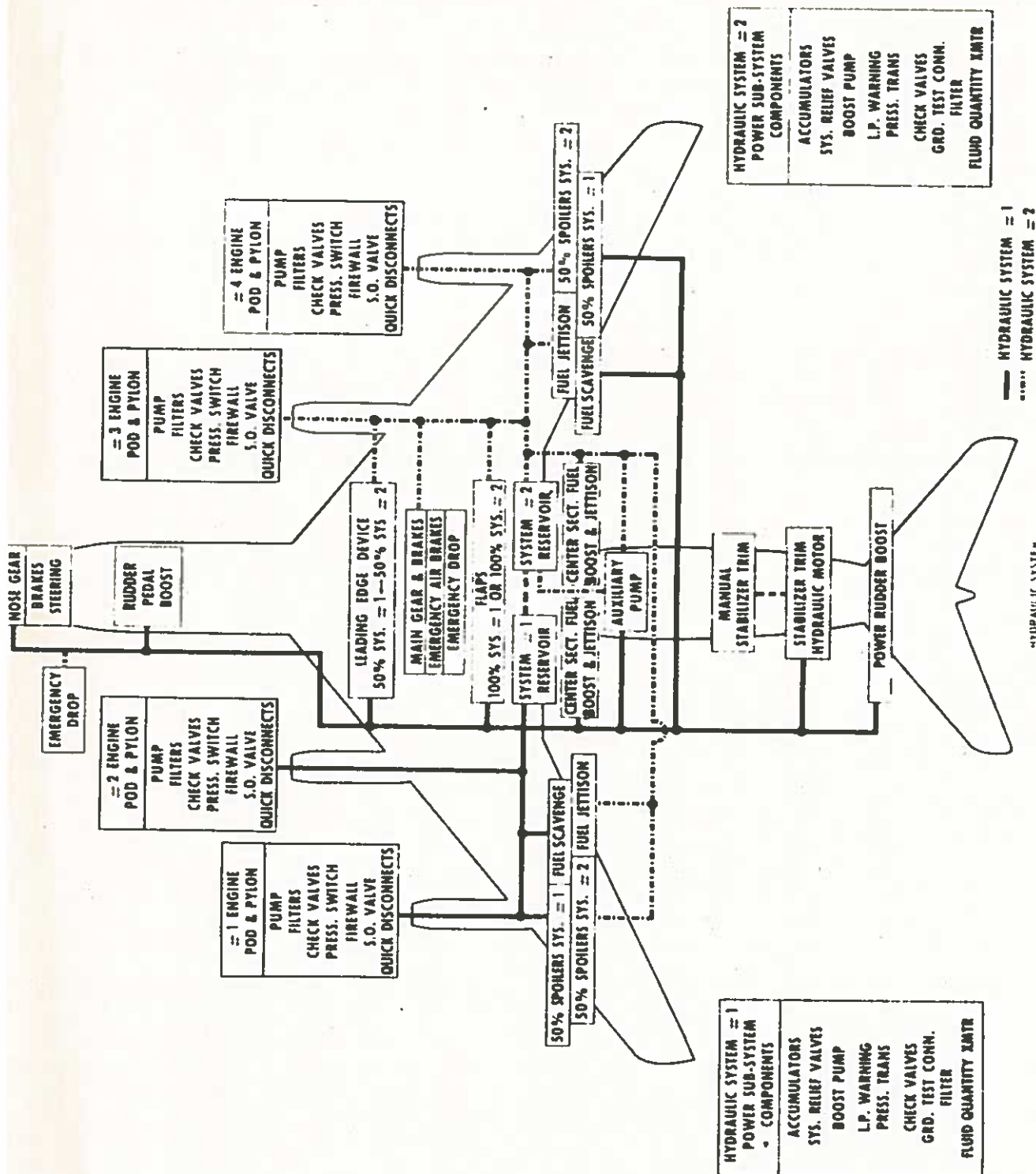
Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR: SD

Page 3a
Report No. ZD-22-323
Model 22M



GENERAL ARRANGEMENT



CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
12700 CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. 70-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCI 13,010 DTD _____

CHANGE NO. 16

MODEL 22-21 (#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Passenger Seat Back Movement)

ORIGIN: Convair initiated

REASON FOR CHANGE: To make specification language agree with actual seat back positioning capability.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 7/16/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE: _____

AIRPLANES AFFECTED: _____

SPECIAL PROVISIONS: _____

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Alaska Airlines Inc.
Change No. 16

Title: Specification Administrative Change (Revision to Passenger
Seat Back Movement)

Origin: Convair initiated

Reason for Change: To make specification language agree with actual
seat back positioning capability.

Description of Change:

Page 84, Paragraph 3.19.1.1.6.1 SEAT BACK MOVEMENT:

Revise the paragraph to read as follows:

"Each reclining seat shall be designed so that pressure applied on the aft side of the seat back will override the recline control lock without additional manual operation, and fold the seat back forward to its normal upright position. This pressure on the seat back shall not exceed 25 pounds. The seat back shall fold to approximately 30 degrees forward of the vertical position by applying a load of not less than 30 pounds, or more than 35 pounds, at the top of aft side of the seat back without removing the center arm rest. The seat back may be further folded to approximately a horizontal position by removing the center arm rest. Seat back positions shall be as follows:

Normal Upright: 15 degrees aft of vertical

Normal Recline: 38 degrees aft of vertical (With integral
folding food trays installed)

Maximum Recline: 45 degrees aft of vertical (With integral
folding food trays not installed)

Delete the note on the bottom of Page 84 which reads:

"*45 degrees seat recline restricts use of integral folding food
trays."

Effect on Weight Empty: 0

Effect on Balance: 0

Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,009 DTD _____

CHANGE NO: 14

MODEL: 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraphs 3.10.1.5.1 and 3.11.8)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of subject paragraphs

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

0

0

0

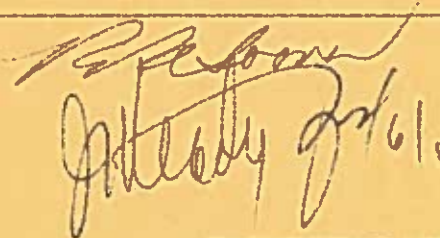
INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

Title: Specification Administrative Change (Revision to Paragraphs 3.10.1.5.1 and 3.11.8)

Origin: Convair initiated

Reason for Change: To clarify the intent of subject paragraphs.

Description of Change:

Page 26, Paragraph 3.10.1.5.1 - STABILIZER TRIM CONTROL:

Delete the last two sentences and substitute the following

"A switch, guarded in the on position, shall be installed on the pedestal to shut off all hydraulic power to the stabilizer screw jack. A three-position momentary switch shall be installed on the pedestal which, after the hydraulic shutoff switch is moved to "OFF", operates the standby electrical-mechanical stabilizer trim control. In addition, hand cranks shall be installed on the pedestal for emergency manual stabilizer trim control".

Page 28, Paragraph 3.11.8 - INSPECTION AND MAINTENANCE:

Delete the last sentence and substitute the following:

"Each engine QEC (quick engine change build-up) shall be interchangeable and replaceable as a complete assembly, except for reverser cascades, and certain accessories which may not be required on individual installations".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: 20-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,069 Revised
DTD 20 January 1961

CHANGE NO: 15

MODEL: 22-21(#2) Convair "880"

TITLE: Navigator's Station, Provisions and Loose Equipment for

ORIGIN: Alaska Airlines verbal request (Sindt to Carothers)
on 6 January 1961


REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+10.0 lbs.	+10.0 lbs.	+2,942
		INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND
TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON
PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

m. l. c.
 2/3/61
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:
----------------------------	---------------------

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE:
	RECURRING: _____
	NON-RECURRING: _____
	TOTAL: _____

ACCEPTED: _____ CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Navigator's Station, Provisions and Loose Equipment for

Origin: Alaska Airlines verbal request (Sindt to Carothers)
on 6 January 1961.

Reason for Change: Customer request

Description of Change:

Page 16, Paragraph 3.7.1.3.1 - PILOT COMPARTMENT:

Add the following sentence to the end of paragraph:

"The observer's seat shall be interchangeable with a navigator's seat. (See Paragraph 3.19.1.1.3.1)

Page 72, Paragraph 3.17.1.1 - CONTROL PANELS:

Add the following items to the "Control Panel" Description List:

"*Audio Selector (1), Navigator Station
*Microphone Selector (1), Navigator Station".

Add the following to the bottom of Page 72:

"* Loose equipment"

Page 78, Paragraph 3.17.2.3.1 - AUDIO SELECTOR:

Add the following sentence, after the third sentence:

"In addition, an audio selector panel shall be provided as loose equipment for use at navigator station, when that station is installed".

Add the following sentence to the end of the paragraph:

"Microphone and headset jacks and necessary connectors shall be provided as a part of the harnesses for use at navigator station, when that station is installed".

Page 79, Paragraph 3.17.2.3.5 - SMOKE AND OXYGEN MASK AND MICROPHONE:

Add the following sentence after the first sentence:

"An oxygen mask with microphone shall be provided as loose equipment for use at navigator station, when that station is installed".

Page 83, Add the following new paragraph to the page after Paragraph 3.19.1.1.3:

3.19.1.1.3.1 - NAVIGATOR'S STATION (PROVISIONS): A navigator's seat, designed to be interchangeable with the observer's seat, shall be furnished as loose equipment. The following additional equipment shall be provided as loose equipment for alternate installation of a navigator station in lieu of an observer station:

- a. Table, with light and stowage provisions for oxygen mask, and smoke mask
- b. Safety belt

In addition, a navigator's console shall be installed for mounting the following items which shall be provided as loose equipment:

- (1) Oxygen mask and regulator
- (2) Audio selector panel
- (3) Microphone and headset
- (4) Microphone select panel
- (5) Lighting control panel

Page 94, Paragraph 3.19.5.4 - INDIVIDUAL OUTLETS:

Add the following sentence after the first sentence:

"Provisions shall be made in the crew oxygen system for a navigator oxygen outlet, which shall be blanked off when not in use".

Page 94a, GASEOUS OXYGEN SYSTEM:

Replace above illustration in the specification with Enclosure (A) which shows provisions for a navigator mask and regulator.

Page A-10, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Add the following items under "INTERPHONE SYSTEM (FLIGHT)":

"*1	Microphone (Nav.)	Telephonics	RS-38E
*1	Headphone (Nav.)	Telex	3775"

Add the following to the bottom of Page A-10:

"*Loose Equipment"

Page A-11, APPENDIX I-C, ELECTRONIC EQUIPMENT:

Add the following item under "Control Panels":

"* 1 Audio Selector Panel (Nav.) Gables G-551

Add the following to the bottom of Page A-11:

"*Loose Equipment"

Page A-15, APPENDIX I-C, FURNISHINGS:

Add the following items under "Description":

"**1 Table, with Light (Nav.)
**1 Seat, with Safety Belt {Nav.}
**1 Lighting Control Panel {Nav.}"

Add the following to the bottom of Page A-15:

"**Loose Equipment"

Page A-16, APPENDIX I-C, OXYGEN EQUIPMENT:

Add the following items under "Description":

"**1 Regulator (crew diluter
demand-type) (Nav.)
**1 Supplemental Oxygen Mask (Nav.) Scott Type A-14
**1 Smoke Mask (Nav.) Scott"

Add the following to the bottom of Page A-16:

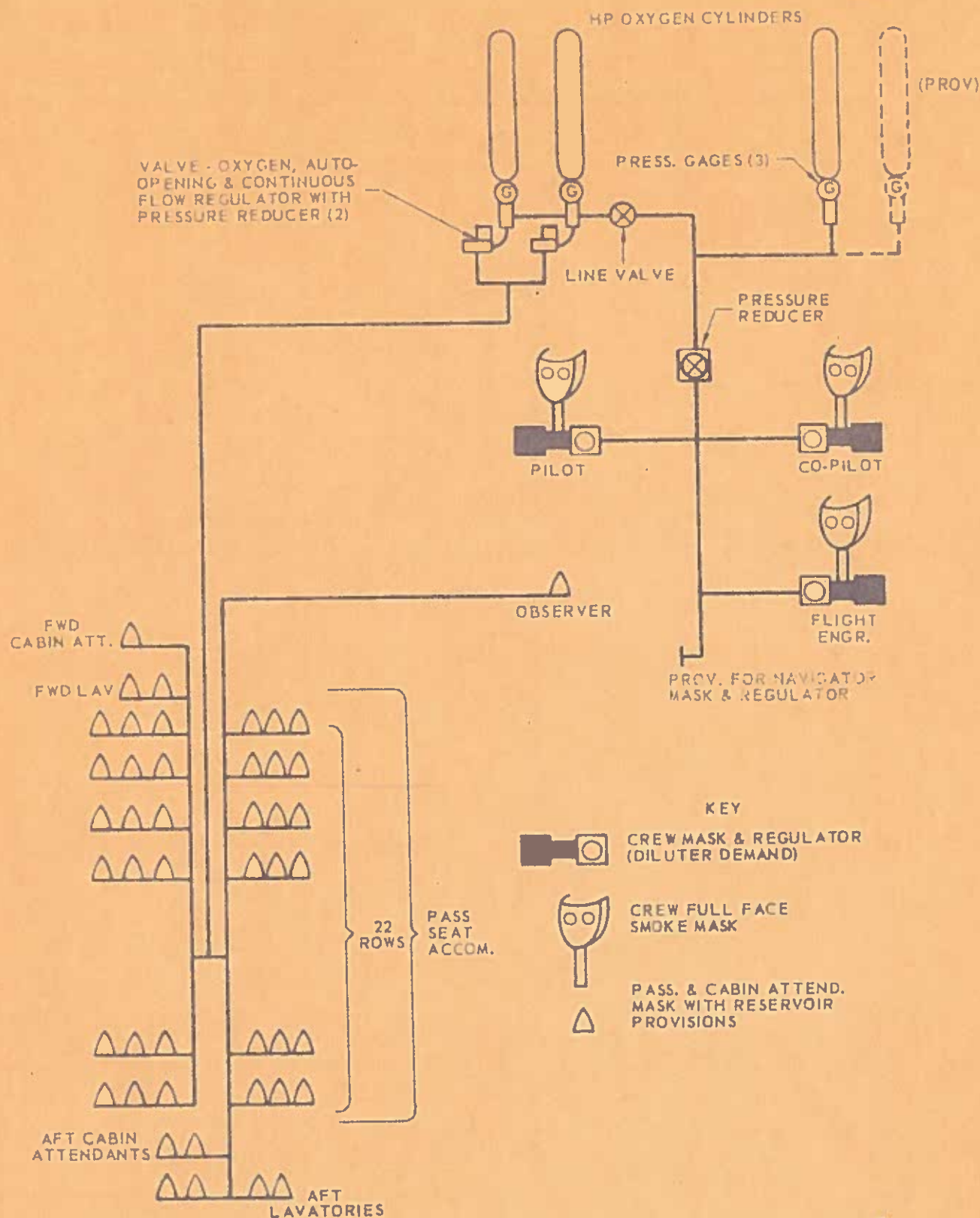
"**Loose Equipment"

Enclosure: (A) One copy Page 94a - GASEOUS OXYGEN SYSTEM (Revised)

Effect on Weight Empty: +10.0 lbs.
Effect on Balance: +2,942 in. lbs.
Effect on Performance: None

The following shall not appear in the specification language:

The loose equipment items defined in this proposal are provided for installation at Customer option, therefore are not included in either Weight Empty or Operating Weight Empty tabulation.



CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,068 DTD 6 January 1961

CHANGE NO: 13

MODEL: 22-21(#2) (Convair "880")

TITLE: **Periscopic Sextant Provisions, With Mount, Installation of**

ORIGIN: **Verbal request by Mr. Sindt of Alaska Airlines to Mr. Carothers of Convair on 6 January 1961.**

REASON FOR CHANGE: **Customer request**

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+10.0 lbs.	+10.0 lbs.	+2,891 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

[Signature] 2/6/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Periscopic Sextant Provisions, With Mount; Installation of

Origin: Verbal request by Mr. Sindt of Alaska Airlines to Mr. Carothers of Convair on 6 January 1961.

Reason for Change: Customer request

Description of Change:

Page 45, Add the following new paragraph to the page, after Paragraph 3.14.2.

3.14.2.1 PERISCOPIC SEXTANT (Provisions Only): Provisions shall be made for the later installation of a periscopic sextant in the pilot's compartment. The provisions shall include the installation of a periscopic sextant mount in the top of the fuselage aft of the pilot's overhead panel, installation of overhead trim, lighting and overhead bumpers in the sextant mount area".

Page A-4, APPENDIX I-C, INSTRUMENTS AND RELATED EQUIPMENT:

Add the following item under "FLIGHT INSTRUMENTS"

"1 Mount, Periscopic Sextant	Kollsman	1287M-01"
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Effect on Weight Empty:	+10.0 lbs.
Effect on Balance:	+2,891 in lbs.
Effect on Performance:	None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,008 DTD _____

CHANGE NO: 12

MODEL: 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.17.1.7.1)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of Paragraph 3.17.1.7.1.

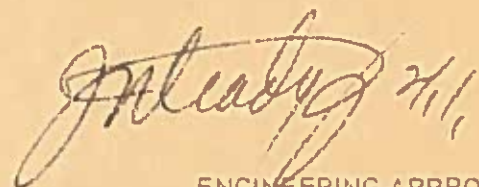
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
0	0	0	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:



ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 12

Title: Specification Administrative Change (Revision to Paragraph 3.17.1.7.1)

Origin: Convair initiated

Reason for Change: To clarify the intent of Paragraph 3.17.1.7.1.

Description of Change:

Page 76, Paragraph 3.17.1.7.1 POWER CONTROLS:

Delete the paragraph and substitute the following:

"3.17.1.7.1 POWER CONTROLS: One "NORMAL" and one "ESSENTIAL" switch located accessible to both pilots, shall control the ac and dc power to the radio equipment. The "NORMAL" switch shall control the weather radar, the marker beacon, selective call systems No. 1 and No. 2, glide slope No. 2, navigation instrument transformer No. 2, VHF navigation No. 2, radio compass No. 2, VHF communication receiver No. 2, VHF communication transmitter No. 2, HF communication No. 2, DMET No. 1 and No. 2, if installed, and ATC transponder No. 1 and No. 2, if installed. The "ESSENTIAL" switch shall control the VHF communication receiver No. 1, VHF communication transmitter No. 1, VHF navigation No. 1, glide slope No. 1, Radio compass No. 1, navigation instrument transformer No. 1, and HF communication No. 1. The emergency dc bus, through suitable circuit breakers, shall power the audio selector panels, the public address amplifier, the interphone, the pilot compartment speaker, the flight data recorder, and the tape reproducer, if installed. All No. 1 normal radio equipment shall be supplied by a separate ac and dc line. All No. 2 normal radio equipment shall be supplied by a second separate ac and dc line. Protection shall be provided for each line. The power supply, feeder wires, circuit protection for equipment which back up each other functionally shall be separated in a manner that will preclude operation failure of both if any one circuit protective device feeder wire or power supply fails. Illumination shall be provided for the circuit breakers.

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

C O N V A I R

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,007 DTD _____

CHANGE NO: 11

MODEL: 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Auxiliary Landing Gear Tail Skid)


ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

<p>* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL</p> <p>ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:</p>	 <p>ENGINEERING APPROVAL</p>
--	---

LATEST DATE OF ACCEPTANCE:	AIRPLANES AFFECTED:

SPECIAL PROVISIONS:	EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____
---------------------	---

ACCEPTED: _____

BY: _____

DATE: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

CONVAIR: SD

Alaska Airlines Inc.
Change No. 11

Title: Specification Administrative Change (Revision to Auxiliary
Landing Gear, Tail Skid)

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page 23, Paragraph 3.8.3 AUXILIARY LANDING GEAR (TAIL SKID):

Change the first line in the paragraph to read as follows:

From: "A retractable skid or "

To: "A skid or "

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: 0

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,062 DTD 18 October 1960

CHANGE NO: 9

MODEL: 22-21 (#2) (Convair "880")

TITLE Flight Data Recorder, Change to Vendor of

ORIGIN: Alaska Airlines Letter (SINDT to CAROTHERS) dated 14 October 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

GUAR. WT. EMPTY

OPER. WT. EMPTY

Negligible

Negligible

EFFECT ON BALANCE *

Negligible

INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

W. L. Clayton

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 9

Title: Flight Data Recorder, Change to Vendor of

Origin: Alaska Airlines Letter (SINDT to CAROTHERS) dated 14
October 1960

Reason for Change: Customer request

Description of Change:

Page 48, Paragraph 3.14.4 FLIGHT DATA RECORDER:

Revise the first sentence as follows:

From: "A Waste King No. 5424 flight data recording system conforming to ARINC Characteristic No. 542 shall be installed."

To: "A United Data Control No. F-542L flight data recorder system, conforming to ARINC Characteristic No. 542, shall be installed."

Page A-4, INSTRUMENTS AND RELATED EQUIPMENT:

Revise the below items under "FLIGHT RECORDER" as follows:

<u>From:</u>	"1 Flight Data Recorder consisting of:	Waste King	5424
	1 Encoder (Trip and Data)	Waste King	10110
	1 Magazine	Waste King	5427
	1 Recording Unit	Waste King	10022
	1 Acceleration Sensor	Waste King	5690"

<u>To:</u>	"1 Flight Data Recorder System, consisting of:	United Data Control	F-542L"
	1 Recording Unit		
	1 Acceleration Sensor		
	1 Encoder		

Effect on Weight Empty: Negligible
Effect on Balance: Negligible
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,064 DTD 28 November 1960 ^{Revised}

CHANGE NO: 8

MODEL: 22-21 (#2) (Convair "880")

TITLE: Passenger Seats, Main Cabin, Change to

ORIGIN: Alaska Airlines Letter (G. SINDT to R. B. CAROTHERS) dated 3 November 1960

REASON FOR CHANGE: Customer request

EFFECT ON WEIGHT *

EFFECT ON BALANCE *

GUAR. WT. EMPTY

OPER. WT. EMPTY

+390.0 lb

+429.0 lb

+327,773


INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

mhc
 1/6/61

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Passenger Seats, Main Cabin, Change to

Origin: Alaska Airlines Letter (G. SINDT to R. B. CAROTHERS) dated
3 November 1960.

Reason for Change: Customer request.

Description of Change:

Page 1, Paragraph 1.1 BASIC TYPE:

Revise the second and third sentences to read as follows:

"This specification describes an interior and seating arrangement for the accommodation of 106 passengers; consisting of 94 coach passengers and 12 lounge area passengers. Provisions also are incorporated in this airplane to permit conversion to various mixed seating arrangements and to a full first class seating arrangement."

Page 3b, INTERIOR ARRANGEMENT:

Above illustration will be revised to show an all coach seating arrangement in lieu of first class seating; with the lounge area remaining unchanged.

Page 6, Paragraph 3.1.2.2 TYPICAL LOADING SUMMARY:

Under "Manufacturer's Weight Empty (dry)", change "(Standard Configuration)" to "(Coach Configuration, with 12-Place Lounge)".

In "Fixed Useful Load", change "Life Vests (91)" to "Life Vests (113)".

In "Payload (space limit)*", delete the asterisk and change "(Standard Configuration)" to "(Coach Configuration, with 12-Place Lounge)".

Revise "Space Limit Payloads:" as follows:

From: "Space Limit Payloads:

	<u>Standard</u>	<u>Coach Configuration</u>
Passengers @ 165 lb (84 standard) (105 alternate coach)*	13,860	17,325 lb
Baggage @ 40 lb/passenger	3,360	4,200 lb
Cargo	5,270	4,430 lb
	22,490	25,955 lb"

To: "Space Limit Payloads:

Coach Configuration
with 12-Place Lounge

Passengers @ 165 lb
(94 coach and 12-lounge)
Baggage @ 40 lb/passenger
Cargo

17,490 lb
4,240 lb
4,390 lb
26,120 lb

Delete the asterisk note on the bottom of Page 6 "(*NOTE: Space limit coach arrangement of)"

Page 9, Paragraph 3.2.1 GENERAL INTERIOR ARRANGEMENTS:

Revise the first sentence as follows:

From: "The standard interior arrangement of this airplane shall be as shown on the inboard plan and profile drawing."

To: "The interior arrangement of this airplane shall be as shown on Page 3b - INTERIOR ARRANGEMENT."

Page 16, Paragraph 3.7.1.3 CREW AND PERSONNEL STATIONS:

Revise the sentence as follows:

From: "The interior arrangement for the standard configuration shall be essentially as shown on the Inboard Profile Drawing herein."

To: "The interior arrangement shall be essentially as shown on Page 3b - INTERIOR ARRANGEMENT."

Page 63, Paragraph 3.16.8.3.4 READING LIGHTS:

Delete the second and third sentences which read as follows:

"Of the five lights provided at each passenger seat row, four shall be installed in optimum direction for the four abreast standard seating arrangement. The fifth shall be directed toward the center coach seat location."

Delete the last seven words in the fourth sentence "(and placard to clearly indicate its function)"

Page 79, Paragraph 3.17.2.3.7 SPEAKERS:

In the second line, delete the word "standard".

Page 83, Paragraph 3.19.1 GENERAL:

Revise the paragraph to read as follows:

"The interior shall include furnishings and equipment for 106 passengers (including 12 lounge area passengers) and crew accommodations as shown on illustration herein. In addition, the interior shall be designed to permit conversion to various mixed seating arrangements and to a full first class seating arrangement."

Page 84, Paragraph 3.19.1.1.6 PASSENGER SEATS:

Revise the paragraph to read as follows:

"The passenger seating arrangement shall be as shown on Page 3b - INTERIOR ARRANGEMENT; consisting of 20 double coach seats, 18 triple coach seats and a 12-place lounge area. All passenger seats, except lounge seats, shall have reclinable backs and shall be equipped with plug-in center arm rests in the double seats, and with plug-in arm rests in the triple seat assembly except for the inboard and outboard arm rests which shall be fixed. Stowage provisions for life vests shall be made on the underside of the passenger seats. Space, approximately 10 x 15 x 24 inches shall be provided under each seat in the main cabin for passenger package stowage. Integral folding food trays shall be installed in the passenger seat backs excluding last row of seats and the seats immediately forward of the movable coat dividers which shall have provisions only and including cover panels for the food tray wells. Plug-in type food trays shall be provided for the five front row seats, the five seat places just aft of the movable coat dividers and the 12-place lounge seats. Stowage for plug-in trays shall be provided in the movable coat dividers. Literature pockets shall be installed on the main cabin forward partitions, the aft side of the movable coat dividers and directly below the food trays in the passenger seat backs."

Page 84, Paragraph 3.19.1.1.6.1 SEAT BACK MOVEMENT:

Revise the two bottom lines as follows:

From: "Normal Vertical: 12 degrees aft of vertical

Recline: 38 and *45 degrees aft of vertical"

To: "Normal Vertical: 15 degrees aft of vertical
Recline: 23 and 38 degrees aft of vertical"

Delete the note on bottom of Page 84 "(*45 degrees seat recline restricts)"

Page 89, Paragraph 3.19.3.1 GENERAL ARRANGEMENT:

In the first line, delete the word "standard".

Page 89, Paragraph 3.19.3.1.1 PASSENGER COMPARTMENT:

Revise the first sentence as follows:

From: "The main passenger compartment aisle shall be a minimum of 24 inches wide between arm rests in the standard configuration."

To: "The main passenger compartment aisle width shall be approximately 19 inches between arm rests in the coach configuration."

Page 91, Paragraph 3.19.3.6 HAT RACKS:

In the last line, change "Standard" to "Coach".

Page 94a, GASEOUS OXYGEN SYSTEM:

Above illustration will be revised to show 23 seat rows in lieu of 22."

Page A-2, APPENDIX I-B, CUSTOMER FURNISHED - CUSTOMER INSTALLED:

Revise the below item under "Description" as follows:

From: "91 Life Vest 159.0"

To: "113 Life Vest 198.0"

Page A-15, APPENDIX I-C, FURNISHINGS:

Revise the below items under "Description" as follows:

From: "36 Seats, Double (First Class)
68 Tray, Integral Folding Food
20 Tray, Plug-in Type
84 Belt, Passenger Safety"

To: "18 Seats, Triple, Coach, L.H.
19 Seats, Double, Coach, R.H.
1 Seat, Double, Coach, L.H.
84 Trays, Integral Folding Food
22 Trays, Plug-in Type
106 Belts, Passenger Safety"

Effect on Operating Weight Empty: +429.0 pounds
Effect on Weight Empty: +390.0 pounds
Effect on Balance: +327,773 inch-pounds
Effect on Performance: None

The following shall not appear in the specification language:

The installation of the coach seats as covered by this proposal will be at 36-inch spacing.

A "Babe in Arms" placard will be installed on the forward left hand partition.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,006 DTD _____

CHANGE NO: 7

MODEL: 22-21 (#2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Pilots' Instrument Panel Illustration and to Par. 3.14.2)

ORIGIN: Convair initiated

REASON FOR CHANGE: To revise subject illustration to agree with actual installation, and to indicate correct location of compass system switches.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY	OPER. WT. EMPTY		
0	0	0	INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

M. L. Clayton

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 7

Title: Specification Administrative Change (Revision to Pilots'
Instrument Panel Illustration and to Par. 3.14.2)

Origin: Convair initiated

Reason for Change: To revise subject illustration to agree with
actual installation, and to indicate correct
location of compass system switches.

Description of Change:

Page 43a, PILOT'S AND COPILOT'S INSTRUMENT PANELS:

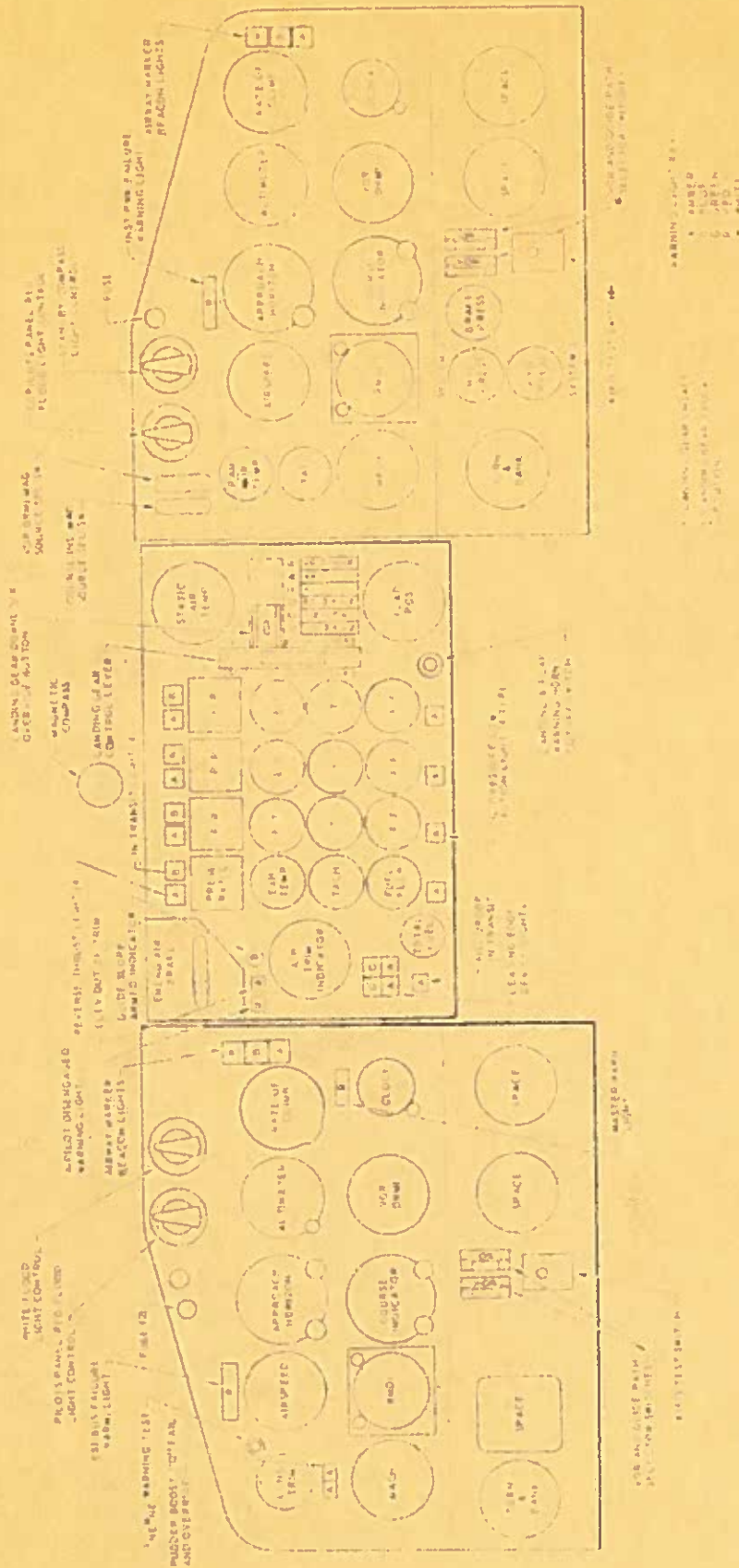
Replace above illustration in specification with Enclosure (A)
which was revised to be in agreement with actual instrument
installation.

Page 45, Paragraph 3.14.2 FLIGHT AND NAVIGATIONAL INSTRUMENTS -
EQUIPMENT INTERCONNECTION AND DESCRIPTION:

In the third line, change "center engine" to "copilot's"

Enclosure: (A) One copy Page 43a - PILOT'S AND COPILOT'S INSTRU-
MENT PANELS (Revised)

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None



PILOT'S AND COPILOT'S INSTRUMENT PANELS
ALASKA

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-323


DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,005 DTD _____

CHANGE NO. 6

MODEL. 22-21 (#2) (Convair "880")

TITLE Specification Administrative Change (Revision to Engine Specification)			
ORIGIN Convair initiated			
REASON FOR CHANGE: To specify the G. E. Engine Specification under which engines will be supplied.			
EFFECT ON WEIGHT *		EFFECT ON BALANCE *	
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.	
EFFECT ON GUARANTEED PERFORMANCE: * None			
* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:		 ENGINEERING APPROVAL	
LATEST DATE OF ACCEPTANCE:		AIRPLANES AFFECTED:	
SPECIAL PROVISIONS:		EFFECT ON PRICE PER AIRPLANE: RECURRING: _____ NON-RECURRING: _____ TOTAL: _____	

ACCEPTED: _____

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 6

Title: Specification Administrative Change (Revision to Engine Specification)

Origin: Convair initiated

Reason for Change: To specify the G. E. Engine Specification under which engines will be supplied.

Description of Change:

Page 2, Paragraph 2.2 ENGINE SPECIFICATION:

Revise the paragraph as follows:

From: "General Electric Engine Specification E-723h dated 1 September 1959 shall apply."

To: "General Electric Engine Specification E-790 dated 11 July 1960 with Reverser Specification E-725e dated 11 July 1960 and Suppressor Specification E-731f dated 11 July 1960 shall apply."

Page 4, Paragraph 3.1.1.1 PERFORMANCE:

In the eighth line, change "CJ-905-3B" to "CJ-805-3B".

In the ninth line, change "E-723h, dated 1 September 1959" to "E-790, dated 11 July 1960".

Page A-1, APPENDIX I-A, CUSTOMER FURNISHED - CONVAIR INSTALLED:

Revise the following item under "POWER PLANT EQUIPMENT" as follows:

From: "4 Engine, Complete *(Dry) Gen. Electric CJ-805-3B 12980.0"

To: "4 Engine, Complete *(Dry) Gen. Electric CJ-805-3B 12,980.0"
Spec. No.
E-790
dated
7-11-60

Effect on Weight Empty: 0

Effect on Balance: 0

Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD-22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,004 DTD _____

CHANGE NO: 5

MODEL: 22-21 (#2) (Convair "880")

TITLE: Specification Administrative Change (Addition of Static Inverter to Paragraph 3.16.2.4.1.

ORIGIN: Convair initiated

REASON FOR CHANGE: To specify that static inverter is being furnished

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

m. l. c.

[Signature] 11/21/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

CONVAIR: SD

Alaska Airlines Inc.
Change No. 5

Title: Specification Administrative Change (Addition of Static Inverter to Paragraph 3.16.2.4.1)

Origin: Convair initiated

Reason for Change: To specify that static inverter is being furnished

Description of Change:

Page 52, Paragraph 3.16.2.4.1 - POWER TRANSFER:

Add the following to the end of paragraph:

"A static inverter, connected to the battery, shall be provided for engine ground start when external a-c electrical power is not available".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD-22-323

DATE: _____

CUSTOMER: Alaska Air Lines

MCL 13,053 DTD _____

CHANGE NO: 4

MODEL: 22-21(#2) (Convair "880")

TITLE: Main System Hydraulic Pumps, Change to

ORIGIN: Convair initiated

REASON FOR CHANGE: Product improvement

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
+31.0 lbs	+31.0 lbs	+23,091 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *
None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

 11/14/60
ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Main System Hydraulic Pumps, Change to

Origin: Convair initiated

Reason for Change: Product improvement

Description of Change:

Page A-12, APPENDIX I-C, HYDRAULIC AND PNEUMATIC EQUIPMENT:

Revise the below item under "Description" as follows:

From: "4 Pump, Main System Ham. Standard"
(Variable Displacement

To: "4 Pump, Main System Vickers AS-61695-L-2
(Variable Displacement
Type)

Effect on Weight Empty: +31.0 lbs
Effect on Balance: +23091 in. lbs.
Effect on Performance: None

The following shall not appear in the Specification language:

The hydraulic pump will incorporate one electrical depressurization valve and one blocking valve. The bolt-on ports will be modified to suit the Model 22 installation, and the yoke blocked back to a 6 gpm rating in lieu of 10 gpm.

This proposal also deletes the four accumulators in the hydraulic return lines, since these accumulators are not required with the Vickers pump.

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO.: ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,003 DTD _____

CHANGE NO: 3

MODEL: 22-21(#2) (Convair "880")

TITLE: Specification Administrative Change (Clarification of Cabin Ceiling Height)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify cabin ceiling in the area of the dropped ceiling.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY 0	OPER. WT. EMPTY 0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

me 22

[Signature] 11/1/60

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: _____

TOTAL: _____

ACCEPTED:

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____

Title: Specification Administrative Change (Clarification of Cabin Ceiling Height.

Origin: Convair initiated.

Reason for Change: To clarify cabin height in the area of the dropped ceiling.

Description of Change:

Page 89, Paragraph 3.19.3.1.1 - PASSENGER COMPARTMENT:

Revise the last sentence to read as follows:

"The clear ceiling height in the main cabin shall be approximately 85 inches at the airplane centerline except in the area of the dropped ceiling which shall be approximately 78 inches".

Effect on Weight Empty: 0
Effect on Balance: 0
Effect on Performance: None

CONVAIR

A DIVISION OF GENERAL DYNAMICS CORPORATION
SAN DIEGO, CALIFORNIA

COMMERCIAL CHANGE PROPOSAL

SPEC NO. ZD- 22-323

DATE: _____

CUSTOMER: Alaska Airlines Inc.

MCL 13,001 DTD _____

CHANGE NO. 1

MODEL: 22-21(2) (Convair "880")

TITLE: Specification Administrative Change (Revision to Paragraph 3.10.0.3.4 and to ADP Control Panel 2/1)

ORIGIN: Convair initiated

REASON FOR CHANGE: To clarify the intent of the specification.

EFFECT ON WEIGHT *		EFFECT ON BALANCE *
GUAR. WT. EMPTY	OPER. WT. EMPTY	
0	0	0 INCH LB.

EFFECT ON GUARANTEED PERFORMANCE: *

None

* NEGLIGIBLE CHANGES WILL BE ACCUMULATED AND TOTALS REFLECTED IN A FUTURE CHANGE PROPOSAL

ACCEPTANCE OF THIS CHANGE IS DEPENDENT UPON PRIOR ACCEPTANCE OF THE FOLLOWING CHANGES:

m. l. Clayton

ENGINEERING APPROVAL

LATEST DATE OF ACCEPTANCE:

AIRPLANES AFFECTED:

SPECIAL PROVISIONS:

EFFECT ON PRICE PER AIRPLANE:

RECURRING: _____

NON-RECURRING: 1 _____

TOTAL: _____

ACCEPTED

CONVAIR, A DIVISION OF GENERAL DYNAMICS CORP.

BY: _____

DATE: _____